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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/333,564	06/21/1999	NANCY F. DEAN	34806/VGG/J1	4248

7590 02/26/2003

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EXAMINER

JUSKA, CHERYL ANN

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 02/26/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/333,564	DEAN ET AL.	
	Examiner	Art Unit	
	Cheryl Juska	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 02 January 2003.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 32-57 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 32-57 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 23,25,28.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Amendment E, submitted as Paper No. 29 on January 2, 2003, has been entered. Claim 49 has been amended and new claims 56 and 57 have been added. Thus, the pending claims are 32-57.
2. Said amendment is sufficient to withdraw the 112, 2nd rejection of claim 49, as set forth in section 3 of the last Office Action.

Information Disclosure Statement

3. Applicant notes in Amendment E that signed copies of Forms PTO-1449 submitted on 11/16/01, 08/09/02, and 07/19/02 were not returned with the prior Office Action. Accordingly, Applicant submitted copies of said forms. In response, it is noted that the signed copies of 08/09/02 and 07/19/02 (Papers 25 and 23, respectively) were erroneously omitted from the mailing of the last Office Action. As such, said signed copies are hereby resubmitted for mailing.
4. However, the IDS that Applicant asserts was filed 11/16/01 was never received by the Office and entered into the Application. Thus, the copy of said IDS fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not

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been considered. It is requested that Applicant resubmit said IDS with a copy of the references in response to this Office Action.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 32-50, 53, and 55 stand rejected under 35 USC 103(a) as being unpatentable over Koon '548 in view of Koon '707, for the reasons of record.

7. Claims 51, 52, and 54 stand rejected under 35 USC 103(a) as being unpatentable over Koon '548 in view of Koon '707 and in further view of Distenano '605 and Gilleo '455, for the reasons of record.

8. New claims 56 and 57 are rejected under 35 USC 103(a) as being unpatentable over Koon '548 in view of Koon '707.

Said new claims are analogous to claims 53 and 55 with the exception of the omission of the phrase "if any." Thus, said claims are rejected for reasons analogous to those presented in the rejections of claims 53 and 55.

Response to Arguments

9. Applicant's arguments filed with Amendment E have been fully considered but they are not persuasive.

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10. Applicant traverses the above rejections based upon Koon '548 in view of Koon '707 by asserting that a proper *prima facie* case of obviousness has not been presented (Amendment E, page 6, 1st paragraph). In particular, Applicant argues the Examiner employed improper hindsight as motivation to combine the references (Amendment E, paragraph spanning pages 6-7). In response, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). It is the Examiner's position that the motivation to combine the references can be found within said references rather than from Applicant's disclosure.

11. Additionally, Applicant argues that the combination of references does not teach adding an appropriate amount of encapsulant so as to meet the claim limitation of an average fiber length greater than the average thickness of encapsulant (Amendment E, page 7, 2nd paragraph and page 10). In response, it is reiterated that even upon applying a maximum amount of encapsulant to the flocked composite, the average fiber length would inherently be greater than the encapsulant thickness due to (i) some inherent shrinkage of encapsulant upon drying or curing and (ii) the length of fiber which is embedded in the substrate but not encapsulated by said encapsulant. (Note page 5 of the last Office Action for a detailed rationale of the Examiner's position.)

12. Applicant argues that a prior art reference must be considered in its entirety, including portions which teach away from the claimed invention (Amendment E, pages 7-9). In particular,

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Applicant asserts Koon '707 teaches away from the present invention due to its requirement of interdigitating the flock fibers of two opposing surfaces. In response, it is reiterated that this line of contention is irrelevant to the present rejection, since Koon '707 is relied upon for its teaching of a polymeric encapsulant, rather than for the fiber structure, which is taught by Koon '548. Koon '707 explicitly teaches the addition of a polymeric encapsulant increases the productivity of a heat transfer interface. Specifically, Koon '707 states, "It may be envisioned that a conductive polymer filler be used to augment the conductivity across the gap...." (col. 6, lines 18-21). One skilled in the art would readily recognize that this enhancement is not limited to the interdigitating flock structure of Koon '707, but would be applicable to almost any gap between surfaces. Thus, modifying Koon '548 by the teachings of Koon '707 with the addition of a conductive polymer filler (i.e., encapsulant) does not destroy or teach away from the objectives of Koon '548.

13. With respect to the rejections of claims 51, 52, and 54, Applicant traverses that the silicone elastomers of Distefano and Gilleo would not necessarily apply to a conductive fiber context of the present invention (Amendment E, page 12). In response, it is reiterated that said references teach the equivalence of elastomers and gels as encapsulants. Additionally, it is noted that there is nothing on record to suggest that the encapsulant teachings of Distefano and Gilleo would not apply to the Koon encapsulant teaching. As such, one skilled in the art would have a reasonable expectation of success in employing the equivalent encapsulants.

14. Therefore, Applicant's arguments have been found unpersuasive and the above rejections are maintained.

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Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

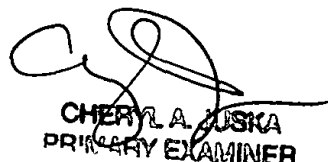
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Cheryl Juska whose telephone number is 703-305-4472. The Examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

cj
February 23, 2003


CHERYL A. JUSKA
PRIMARY EXAMINER